

**1. Why did you choose the dataset you used for your EDA?**

I chose the dataset I used for my explanatory data analysis because of my interest in the electric bikes and scooters I see around campus. I have always wondered the environmental reasons for using electric bikes, whether that be weather, temperature, time of day, or day of the week. The data they are able to collect has always been an interest of mine, from the distances they go, to how long people use them on average, and in what places.

**2. What about the context of the data interested you?**

The dataset I chose was taken from the Bikeshare company in Washington DC, where electric rentable bikes are extremely popular. The frequency of bike rentals has accelerated greatly in the past decade and it has generated large research interest in its effects on traffic, the environment, health, and the economy. I wanted to look into the possible reasons that people are willing to pay and use electric bikes in a city like Washington D.C. that is walkable and has other means of transportation.

**3. What relationships did you expect to find among your variables of interest?**

I expected to find that people rent bikes more during the middle of the day, when the temperature is higher, and when the windspeed is generally lower. I also expected to find that more registered renters would rent the bikes generally more than casual users. In addition, I expected there would be more bike usage on holidays than regular workdays.

**4. What challenges did you face while completing the assignment, and how did you overcome those challenges?**

The challenges I faced while completing the assignment consisted mostly of editing the dataset. The variables were somewhat cryptic and unclear; I had to do a lot of research to truly understand the variables that the dataset was giving me. In addition, the categorical variables were represented in numbers, and I had to manually change the numbers to the category they represented in the dataset. I also cleared NA values and cut down the number of variables that were not directly of interest.

**5. What do you plan to do differently next time as a result?**

I plan to allot a greater amount of time to editing the dataset. The dataset editing phase is extremely time consuming, and creating a clean dataset is extremely important for the rest of your assignment and analyses to come out accurate, readable, and reproducible.

**6. List at least one specific thing you learned about yourself as a data science student as a result.**

I learned that datasets that are not already cleaned can be extremely hard to understand for me. I need to do extra research and spend extra time with the dataset to truly understand how it functions and what analyses would be most effective for me to run or explore. I also learned that my expectations for results can be very different from the reality of the dataset and research, and I may need to explore my results more fully.

**7. Describe at least one way your personal background influenced how you analyzed this data or presented your analysis.**

My personal background affected my analysis of the Bikeshare dataset because I specifically looked at the amount of rentals compared with environmental factors. My experience with bike rentals has been wholly during my time in university, and my main interest was when users were most likely to use them. I ran analyses on the number of users at a particular hour with other variables, but did not pursue further analyses.

**8. What might someone else have done differently if analyzing the same dataset?**

Someone else may have kept more variables of interest and explored how other environmental variables relate to each other, besides the number of users at a particular hour. They may have run further analyses on the location, miles taken, and average speed of the bikes at each use and drawn conclusions about *how* and *where* the bikes were being used at certain times of day.